



# UNITED STATES PATENT AND TRADEMARK OFFICE

*cy*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,758	03/12/2002	Helmut Witteler	50733	2769

26474 7590 08/25/2006

NOVAK DRUCE DELUCA & QUIGG, LLP  
1300 EYE STREET NW  
SUITE 400 EAST TOWER  
WASHINGTON, DC 20005

EXAMINER

FUBARA, BLESSING M

ART UNIT PAPER NUMBER

1618

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/070,758	<b>Applicant(s)</b> WITTELER ET AL.	
	<b>Examiner</b> Blessing M. Fubara	<b>Art Unit</b> 1618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 6/5/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

Examiner acknowledges amendment, remarks, request for extension of time and declaration under rule 1.132, all filed 6/05/06. Claims 1-9 and 12 and new claims 13-20 are pending. The new claims recite different K values for different concentrations.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 and 12-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Denzinger et al. (US 4,402,937).

Denzinger discloses a process for preparing polyvinylpyrrolidone (PVP)-iodine by reacting the PVP with elemental iodine in the presence of formic acid, oxalic acid, or ammonium salt or amide of carbonic acid, formic acid or oxalic acid and the reaction is carried out in aqueous solution (abstract and column 3, lines 1 and 2). The preparation starts with an aqueous solution of PVP of from 10-60% (column 4, lines 33-37), the PVP has a K value of from 8-50 (column 3, lines 37-41). In example 1, iodine is in an amount of 6% based on the weight of PVP and an available amount of 4.1%. The available iodine in example 2 is 5.1% and 6.2% in example 3. The mixture of the PVP and iodine and formic acid is heated at 70 °C for 20 hours (example 1), at 80 °C for 5 hours (example 2) and at 75 °C for 2 hours and a solid product is isolated from the aqueous solution by drying, spray drying or spray granulation (column 4, lines 53-56). See also claims 1-3. Instant claim 12 is a composition claim and future intended use is

Art Unit: 1618

not critical in a composition claim. Formic acid is a reducing agent of the instant claims. The examples are exemplifications illustrating some aspects of the disclosed process and do not cover all possible combinations of the range of K-values of PVP solutions and the concentrations of the PVP-solution. Denzinger meets the limitations of the instant claims.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-9 and 12-20 are rejected in the alternative, under 35 U.S.C. 103(a) as obvious over Denzinger et al. (US 4,402,937).

The prior art reference is discussed above. The prior art reference discloses PVP K-values of from 8 to 50 and these values are within the range claimed by applicants. The prior art discloses that the PVP-iodine solution prepared is about 50% higher in stability than that of the PVP-iodine solutions that have been previously prepared according to the previous state of the

Art Unit: 1618

prior art (column 4, lines 44-48). The prior art fails to exemplify the claimed relationship. A review of the records does not establish relationship of the starting concentration of the PVP and reaction time for the preparation of the PVP-iodine on the stability of the PVP-iodine in aqueous solution. It would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare a PVP-iodine solution according to the process of Denzinger where the PVP-iodine solution is more stable than the PVP-iodine solution prepared as per the state of the prior art. One having ordinary skill in the art would have been motivated to optimize the starting concentration of the PVP by routine experimentation that would be expected to produce a PVP-iodine solution that is at least 50% higher in stability than that of the state of the prior art.

#### ***Response to Arguments***

6. Applicant's arguments filed 6/5/06 have been fully considered but they are not persuasive.

Regarding applicant's contention that Examiner's rejection is in error because, Denzinger discloses a range of K values for a range of PVP concentration, it is noted that the equation in claim 1 is applicable to a range of K values and a range of concentrations "c" and absent that interpretation of any equation, then a single point expression is all that would be needed and the equation would have no meaning. Secondly, the new claims submitted specifically now refers to various concentrations having varied K values. Thus the Examiners rejection is not in error.

Response to the Declaration:

The declaration by Dr. Rainer Dobrawa is acknowledged.

Art Unit: 1618

A) Regarding the rejection and the K values and the c, an equation sets forth variables that meet certain criteria when certain conditions are met in order to make the equation a valid representation of the process or parameters the equation is attempting to address. Thus applicants declaration that the prior art uses different concentrations in relation to different K values is validated by the new claims presented by applicant in which, different concentrations of PVP have different K values.

The data presented does not have comparable data form Denzinger. No comparison with Denzinger is provided to demonstrate that applicants' PVP-iodine solution is more stable. No unexpected results are provided in the establishment of relationship between the PVP starting concentration and the K-values. Applicants' improved stability is neither reflected in the scope of the claims nor evidenced in any of the data currently submitted.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blessing M. Fubara whose telephone number is (571) 272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Blessing Fubara", written over a horizontal line.

Blessing Fubara  
Patent Examiner  
Tech. Center 1600